

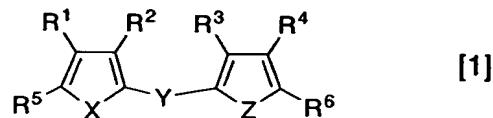
CLAIMS

1. A light emitting element comprising:

a pair of electrodes including a first electrode and a second electrode;

5 a light emitting layer between the pair of electrodes; and

a layer between the light emitting layer and at least one of the pair of electrodes, wherein the layer contains a composite of a conjugated molecule represented by a following general formula [1] and a substance having an electron-accepting property to the conjugated molecule,



wherein the X is the same as or different from the Z,
 wherein the X and the Z each represent a sulfur atom, an oxygen atom, a nitrogen atom to which hydrogen, an alkyl group, or aryl group is bonded, or a silicon atom to which hydrogen, alkyl group, or aryl group is bonded,
 15 wherein the Y represents an arylene group, and
 wherein the R¹ to R⁶ each represent any of a hydrogen atom, an aryl group, an alkyl group, a cyano group, a dialkylamino group, a thioalkoxy group, and an alkoxy group.

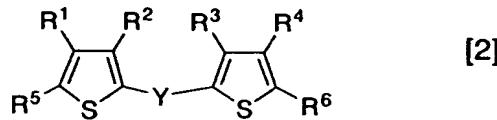
20 2. A light emitting element comprising:

a pair of electrodes including a first electrode and a second electrode;

a light emitting layer between the pair of electrodes; and

a layer between the light emitting layer and at least one of the pair of electrodes, wherein the layer contains a composite of a conjugated molecule represented by

25 a following general formula [2] and a substance having an electron-accepting property to the conjugated molecule,



wherein the Y represents an arylene group, and

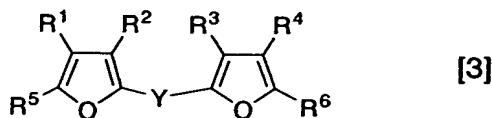
wherein the R¹ to R⁶ each represent any of a hydrogen atom, an aryl group, an alkyl group, a cyano group, a dialkylamino group, a thioalkoxy group, and an alkoxy group.

3. A light emitting element comprising:

a pair of electrodes including a first electrode and a second electrode;

a light emitting layer between the pair of electrodes; and

10 a layer between the light emitting layer and at least one of the pair of electrodes, wherein the layer contains a composite of a conjugated molecule represented by a following general formula [3] and a substance having an electron-accepting property to the conjugated molecule,



15 wherein the Y represents an arylene group, and

wherein the R¹ to R⁶ each represent any of a hydrogen atom, an aryl group, an alkyl group, a cyano group, a dialkylamino group, a thioalkoxy group, and an alkoxy group.

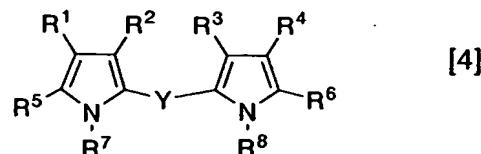
20 4. A light emitting element comprising:

a pair of electrodes including a first electrode and a second electrode;

a light emitting layer between the pair of electrodes; and

a layer between the light emitting layer and at least one of the pair of electrodes, wherein the layer contains a composite of a conjugated molecule represented by

a following general formula [4] and a substance having an electron-accepting property to the conjugated molecule,



wherein the Y represents an arylene group,

5 wherein the R¹ to R⁶ each represent any of hydrogen, an aryl group, an alkyl group, a cyano group, a dialkylamino group, a thioalkoxy group, and an alkoxy group, and

wherein the R⁷ and the R⁸ each represent any of hydrogen, an alkyl group, and an aryl group.

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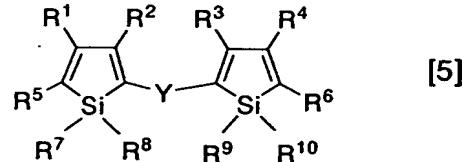
5. A light emitting element comprising:

a pair of electrodes including a first electrode and a second electrode;

a light emitting layer between the pair of electrodes; and

a layer between the light emitting layer and at least one of the pair of electrodes,

15 wherein the layer contains a composite of a conjugated molecule represented by a following general formula [5] and a substance having an electron-accepting property to the conjugated molecule,



wherein the Y represents an arylene group,

20 wherein the R¹ to R⁶ each represent any of hydrogen, an aryl group, an alkyl group, a cyano group, a dialkylamino group, a thioalkoxy group, and an alkoxy group, and

wherein the R⁷ to R¹⁰ each represent any of hydrogen, an alkyl group, and an aryl group.

6. A light emitting element according to any one of claims 1 to 5, wherein the light emitting element emits light from the light emitting layer when a voltage is applied so that an electric potential of the first electrode is higher than that of the second 5 electrode, and wherein the layer is between the first electrode and the light emitting layer.

7. A light emitting element according to any one of claims 1 to 5, wherein the light emitting element emits light from the light emitting layer when a voltage is applied 10 so that an electric potential of the first electrode is higher than that of the second electrode, wherein the layer is between the second electrode and the light emitting layer, and wherein the light emitting element has an electron generation layer which is in contact with the layer at a light emitting layer side.

15 8. A light emitting element according to any one of claims 1 to 5, wherein the light emitting element emits light from the light emitting layer when a voltage is applied so that an electric potential of the first electrode is higher than that of the second electrode, wherein the layer is between the first electrode and the light emitting layer, and between the second electrode and the light emitting layer, and wherein the light 20 emitting element has an electron generation layer which is in contact with the layer between the second electrode and the light emitting layer at a light emitting layer side.

9. A light emitting element according to any one of claims 1 to 5, wherein the substance having the electron-accepting property to the conjugated molecule contains a 25 metal oxide, a metal nitride, an organic compound, or Lewis acid.

10. A light emitting element according to any one of claims 1 to 5, wherein the Y in the formula of the conjugated molecule contains a bivalent aromatic hydrocarbon

radical having a carbon number of 6 to 20, or a bivalent heteroaromatic ring radical having a carbon number of 4 to 30 including oxygen, nitrogen, sulfur or silicon.

11. A light emitting element according to any one of claims 1 to 5, wherein a cyclic structure is formed by the R¹ and the R² of the conjugated molecule, and a cyclic structure is formed by the R³ and the R⁴.

12. A light emitting element according to any one of claims 1 to 5, wherein the light emitting element is used as a pixel of an electronic apparatus.

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13. A light emitting element according to claim 12, wherein the electronic apparatus is at least one selected from the group consisting of a personal computer, a telephone, and a television.

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14. A light emitting element according to any one of claims 1 to 5, wherein the light emitting element is used as a light source.